

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Low noise light receiver, comprising
a light sensor for generating a sensor signal, the sensor signal comprising a wanted signal resulting from a light source and an interfering signal resulting from interfering light;
an optical filter for the light sensor for reducing the interfering light;
an electric filter connected to the light sensor for filtering out the interfering signal and for generating a correction signal that substantially compensates for the interfering signal; and
a processor connected to the light sensor and the electric filter for processing the wanted signal in order to generate an output signal, the processor comprising an amplifier and a feedback resistor, a photocurrent, corresponding essentially to the wanted signal, flowing through the feedback resistor, the resistance of the feedback resistor being selected to prevent a saturation of the amplifier, and being higher than the resistance of the feedback resistor, selected to prevent a saturation of the amplifier, in the event that a photocurrent, corresponding to the wanted signal and the interfering signal, flows through the feedback resistor, the higher resistance of the feedback resistor lowering the noise produced by the feedback resistor when compared to the noise produced by the feedback resistor, in the event that the photocurrent, corresponding to the wanted signal and the interfering signal, flows through the feedback resistor.
2. (Original) Light receiver according to claim 1, wherein the optical filter comprises an optical band pass filter.
3. (Original) Light receiver according to claim 2, wherein the optical band pass filter is a dielectric filter.
4. (Original) Light receiver according to claim 1, wherein the optical filter comprises at least one optical cutoff filter.

5. (Currently Amended) Light receiver according to claim 4, wherein the optical filter further comprises an optical band pass filter and the slope of the optical cutoff filter is at the short-wave end of the transmission range of the optical band pass filter.

6. (Original) Light receiver according to claim 4, wherein the optical cutoff filter is a color filter.

7. (Original) Light receiver according to claim 1, wherein the light sensor is a wavelength-selective photodiode.

8. (Original) Light receiver according to claim 1, wherein the electric filter comprises a current sink and a low pass filter.

9. (Currently Amended) Light receiver according to claim 8, wherein the current sink is adjustable for essentially compensating for the interfering signal.

10. (Canceled).

11. (Original) Light receiver according to claim 1, wherein the electric filter is connected in parallel to the processor.

12. (Original) Photoelectric proximity switch including a light receiver according to claim 1.